**part3**

*-- Get the ISBNs of all books by <Author>*

USE Library;

SELECT ISBN FROM

Inventory NATURAL JOIN Titles WHERE Author = '<Author>'

*-- Get Serial numbers (descending order) of all books by <ISBN>*

USE Library;

SELECT \* FROM Inventory

WHERE ISBN = '<ISBN>'

ORDER BY Serial DESC;

*-- Get the Serial numbers and ISBNs of all books checked out by <Patron’s name>*

SELECT Serial, ISBN

FROM Patrons NATURAL JOIN CheckedOut NATURAL JOIN Inventory WHERE Name = '<Name>';

*-- Get phone number(s) and Name of anyone with <ISBN> checked out*

SELECT Phone, Name

FROM Patrons NATURAL JOIN Phones NATURAL JOIN CheckedOut NATURAL JOIN Inventory WHERE ISBN = '978-0394823379';

**part4**

1. *Find the Authors of the library's oldest <N> books. Assume the lowest serial number is the oldest book.*

SELECT Author FROM Inventory NATURAL JOIN Titles ORDER BY Serial LIMIT <N>;

1. *Find the name and phone number of the person who has checked out the most recent book. Assume higher serial numbers are newer.****Note that this query is not concerned with the absolute highest serial number, it is concerned with the highest one that has been checked out.***

SELECT DISTINCT Name, Phone

FROM CheckedOut NATURAL JOIN Patrons NATURAL JOIN Phones

ORDER BY Serial DESC

LIMIT 1;

1. *Find the phone number(s) and name of anyone who has checked out any book.*

SELECT Phone, Name FROM CheckedOut NATURAL JOIN Patrons NATURAL JOIN Phones;

1. *Find the Authors and Titles of the books who have NOT been checked out by anyone. The query should not return duplicates.*

SELECT DISTINCT Author, Title

FROM Titles NATURAL JOIN Inventory

WHERE Serial NOT IN (

SELECT Serial

FROM CheckedOut

);

**Part5**

1. Find the names and IDs of any player with the 10 highest Elo ratings.

SELECT Name, pID

FROM Players

ORDER BY Elo DESC

LIMIT 10;

2. Find the names and Elo ratings of any player who has ever played a game as black.

SELECT DISTINCT p.Name, p.Elo

FROM Players p

JOIN Games g ON p.pID = g.BlackPlayer;

3. Find the names of any player who has ever won a game as white.

SELECT DISTINCT p.Name

FROM Players p

JOIN Games g ON p.pID = g.WhitePlayer

WHERE g.Result = 'W';

4. Find the names of any player who played any games between 2014 and 2018 in Budapest HUN.

SELECT DISTINCT p.Name

FROM Players p

JOIN Games g ON (p.pID = g.WhitePlayer OR p.pID = g.BlackPlayer)

JOIN Events e ON g.eID = e.eID

WHERE e.Site = 'Budapest HUN'

AND YEAR(e.Date) BETWEEN 2014 AND 2018;

5. Find the Sites and dates of any event in which Garry Kasparov won a game.

sql-- Find the Sites and dates of any event in which Garry Kasparov won a game

SELECT DISTINCT e.Site, e.Date

FROM Events e

JOIN Games g ON e.eID = g.eID

JOIN Players p ON (

(p.pID = g.WhitePlayer AND g.Result = 'W') OR

(p.pID = g.BlackPlayer AND g.Result = 'B')

)

WHERE p.Name = 'Kasparov, Garry';

6. Find the names of all opponents of Magnus Carlsen.

SELECT DISTINCT p.Name

FROM Players p

JOIN Games g ON (

(p.pID = g.WhitePlayer AND g.BlackPlayer = (

SELECT pID FROM Players WHERE Name = 'Carlsen, Magnus'

)) OR

(p.pID = g.BlackPlayer AND g.WhitePlayer = (

SELECT pID FROM Players WHERE Name = 'Carlsen, Magnus'

))

)

WHERE p.Name != 'Carlsen, Magnus';